LIST OF FIGURES

| Figure No. | Caption | Page N | 0. |
|------------------|--|--------|-------|
| Figure 1.1 | Research aim and objectives | | 9 |
| Figure 1.2 | Summary of approached methods | | 10 |
| Figure 1.3 | Outline of the thesis chapters | | 14 |
| Figure 2.1 | Usage of IT tools in construction (Hore, 2006) | | 22 |
| Figure 2.2 | Phases of technological change (Rogers, 2005) | | 24 |
| Figure 2.3 | Predicted future IT trends in construction industry | | 26 |
| Figure 2.4 | Total numbers of Patents granted in the world (MyIPO, 2011) | | 28 |
| Figure 2.5 | Patents granted for the construction sector 1993-201 (MyIPO, 2011) | | 28 |
| Figure 2.6 | IT investment maturity model (Salleh, 2007) | | 29 |
| Figure 3.1 | IT infrastructure flexibility proposed by Fink (2009) |) | 56 |
| Figure 3.2 | Potential benefits of proposed ITIF-MM | | 62 |
| Figure 3.3 | Scopes of prominent infrastructure maturity models | | 63 |
| Figure 4.1 | The research methodology, modified from Tapia (20 | 007) | 70 |
| Figure 4.2 | List of the success factors of ITIF from the construct industry perspective | | 79 |
| Figure 5.1 – 5.7 | Distribution of responses | 101 | - 103 |
| Figure 6.1 | Comparison between continuous and staged representation of a maturity model (Gulbert, 2008) | | 117 |
| Figure 6.2 | The pyramid structure of the model (Tapia, et al., 20 | 007) | 118 |
| Figure 6.3 | Basic features of a maturity model | | 119 |
| Figure 7.1 | The outline for reporting structure for each case | | 143 |
| Figure 7.2 | Organization Bina's organizational structure | | 144 |

| Figure 7.3 | A system flow chart for System P modules – Version 1.0 and 2.0 | 146 |
|-------------|---|-----|
| Figure 7.4 | System P team organizational chart | 147 |
| Figure 7.5 | System P timeline | 148 |
| Figure 7.6 | IT infrastructure flexibility maturity grid for Organization Bina | 167 |
| Figure 7.7 | The assessment summary for System P implementation | 172 |
| Figure 7.8 | Organization Eko's structure | 173 |
| Figure 7.9 | A system flow chart for System R | 174 |
| Figure 7.10 | System R team organizational chart | 175 |
| Figure 7.11 | System R timeline | 176 |
| Figure 7.12 | Standardization of automation in System R | 177 |
| Figure 7.13 | IT infrastructure flexibility maturity grid for Organization Eko | 195 |
| Figure 7.14 | The assessment summary for System R implementation | 198 |
| Figure 7.15 | The sectors in which Organization Taraz operates (Source: The organization's website) | 199 |
| Figure 7.16 | Organization Taraz's organizational structure | 200 |
| Figure 7.17 | IT development team organization chart | 201 |
| Figure 7.18 | System design for System Q | 202 |
| Figure 7.19 | System Q timeline | 203 |
| Figure 7.20 | IT infrastructure flexibility maturity grid for Organization Taraz | 221 |
| Figure 7.21 | The assessment summary for System Q implementation | 224 |
| Figure 7.22 | Comparison of maturity levels between case studies | 225 |